



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,219	11/21/2003	Doan D. Pham	091-0206	3189

27431 7590 08/23/2005
SHIMOKAJI & ASSOCIATES, P.C.
8911 RESEARCH DRIVE
IRVINE, CA 92618

EXAMINER

GOFF II, JOHN L

ART UNIT PAPER NUMBER

1733

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/719,219

Applicant(s)

PHAM ET AL.

Examiner

John L. Goff

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) 7-15, 18, 20, 23 and 28-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16 and 17 is/are rejected.
- 7) ☒ Claim(s) 1-6, 19, 21, 22 and 24-27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment filed on 5/31/05. The previous claim objections have been overcome.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Objections

3. Claims 1-6, 16, 17, 19, 21, 22, and 24-27 are objected to because of the following informalities: Independent claims 1, 16, 19, 21, 24, and 27 recite in the preamble "A method of curing". However, the curing step is not specifically claimed. For clarity claims 1, 16, 19, 21, 24, and 27 should be amended to include a step of curing the malleable/curable portion. Additionally, claims 21, 24, and 27 should be amended to include - - wing - - before panel to provide proper antecedent basis for "said wing panel" in the claims. Appropriate correction is required.

Claim Rejections - 35 USC § 102/103

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 16 and 17 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Rocker et al. (U.S. Patent 6,527,894).

Rocker et al. disclose a method of curing an object (3 of Figure 1) comprising providing an object having a curable portion (3 of Figure 1), placing a first side of a sheet (6 of Figure 1) adjacent the curable portion, placing the sheet and object into a container (5 of Figure 1), and removing gas from the container where bridging occurs extending from a portion of the object to the sheet such that the sheet is coupled with and provides pressure to the object while the object is cured (Column 2, lines 2-6). As to the sheet being rigid and substantially resisting bending, it is noted the sheet is a profile tool for supporting the object during removal of the gas from the container such that it is inherent that the sheet is rigid and resists bending. Furthermore, one of ordinary skill in the art at the time the invention was made would have readily appreciated that a profile tool used in conjunction with a vacuum container is a rigid, bend resistant tool for supporting uncured objects within the container.

Allowable Subject Matter

7. Claims 1-6, 19, 21, 22, and 24-27 would be allowable if rewritten or amended to overcome the objections set forth in this Office action.
8. Claim 23 is rejoined and would be allowable if claim 21 were rewritten or amended to overcome the objections set forth in this Office action.
9. Claims 8-14 would be rejoined and allowed if claim 8 were amended as follows:
 8. A method of curing comprising:
 - providing a first object having a malleable portion;
 - providing a second object having a non-malleable portion;
 - placing a first side of a sheet adjacent to said malleable portion of said first object,
wherein said sheet is rigid and substantially resists bending;
 - placing a second side of said sheet adjacent to said non-malleable portion of said second object;
 - placing said first object, second object and sheet into a container;
 - and
 - removing gas from said container where bridging occurs;
 - where said bridging extends from said second object to said first object;
 - and
 - curing the malleable portion of the first object.

Art Unit: 1733

10. The following is a statement of reasons for the indication of allowable subject matter:

It is noted that in all of the independent claims the limitation “removing gas from said container (or from said nylon bag) where bridging occurs” has been interpreted as positively requiring bridging of the container/bag extending from the first object to the sheet, the second object to the sheet, and/or the first object to the second object.

Regarding claims 1-6 (and 8-14 if amended as suggested), the prior art of record fails to teach or suggest a method of curing comprising providing a first object having a malleable portion, providing a second object having a non-malleable portion, placing a first side of a sheet adjacent to the malleable portion of the first object, **wherein the sheet is rigid and substantially resists bending**, placing a second side of the sheet adjacent to the non-malleable portion of the second object, placing the first object, second object and sheet into a container, **removing gas from the container where bridging occurs**, and curing the malleable portion of the first object.

Regarding claim 19, the prior art of record fails to teach or suggest a method of curing an object comprising providing an object having a curable portion, coupling a sheet to the curable portion, placing the object and sheet into a container, **removing gas from the container where bridging occurs between the object and the sheet**, and curing the curable portion of the object, **the sheet coupled to the object through a layer of Sol-gel.**

Regarding claims 21-23, 25, and 26, the prior art of record fails to teach or suggest a method of joining a stringer and a wing panel and curing portions of the wing panel comprising providing a stringer having a cured portion, providing a wing panel having an uncured portion, placing a first side of a sheet adjacent to the uncured portion of the wing panel, **wherein the sheet substantially resists bending, i.e. the sheet is rigid**, placing a second side of the sheet

Art Unit: 1733

adjacent to the uncured portion of the wing panel, placing the stringer, wing panel and sheet into a nylon bag, **removing gas from the bag where bridging occurs**, and curing the wing panel.

Regarding claims 24 and 27, the prior art of record fails to teach or suggest a method of joining a stringer and a wing panel and curing portions of the wing panel comprising providing a stringer having a cured portion, providing a wing panel having an uncured portion, placing the cured portion of the stringer adjacent the uncured portion of the wing panel with a sheet therebetween, placing the stringer, wing panel, and sheet into a nylon bag, **removing gas from the container where bridging occurs**, and curing the wing panel, **the sheet formed of titanium and/or having a film of Sol-gel between the sheet and the wing panel**.

Response to Arguments

11. Applicant's arguments with respect to claims 1-6, 16, 17, 19, 21, 22, and 24-27 have been considered but are moot in view of the new ground(s) of rejection. In view of applicants amendment the previous rejections are withdrawn and a new rejection is set forth above.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

Art Unit: 1733

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is (571) 272-1216. The examiner can normally be reached on M-F (7:15 AM - 3:45 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John L. Goff



BLAINE COPENHEAVER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700